(33432) MOTION FILED apr MAR - 9 1952

IN THE

Supreme Court of the United States

OCTOBER TERM, 1950

No. 5, Original

STATE OF NEW JERSEY,

Complainant,

against

STATE OF NEW YORK and CITY OF NEW YORK,

Defendants,

COMMONWEALTH OF PENNSYLVANIA,

Intervenor.

MOTION FOR LEAVE TO FILE PETITION, PETITION TO AMEND DECREE, AND BRIEF IN SUPPORT OF PETITION

DENIS M. HURLEY,
Corporation Counsel,
Solicitor for the Petitioner,
The City of New York.

JOHN P. McGRATH,
JAMES J. THORNTON,
JOHN SUGLIA,
RICHARD H. BURKE,
of Counsel.

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COMMONWEALTH OF PENNSYLVANIA,

Intervenor.

Motion for Leave to File Annexed Petition for Modification of Decree.

Now comes the petitioner and respectfully moves this Court for leave to file the annexed petition for modification of a certain decree, as provided in paragraph "6" thereof, made and entered in this Court on May 25, 1931, so as to permit your petitioner to utilize for water supply purposes an increased diversion of the waters of the Delaware River or its tributaries from the equivalent of 440 million gallons of water daily to the equivalent of 800 million gallons of water daily.

April 1st, 1952.

DENIS M. HURLEY,
Corporation Counsel of
The City of New York,
Solicitor for the Petitioner,
Office and P. O. Address,
Municipal Building,
New York 7, N. Y.

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No. 5, Original

STATE OF NEW JERSEY,

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STATE OF NEW YORK and CITY OF NEW YORK,

Defendants,

COMMONWEALTH OF PENNSYLVANIA,

Intervenor.

PETITION TO MODIFY DECREE

TO THE HONORABLE CHIEF JUSTICE AND THE ASSOCIATE JUSTICES OF THE SUPREME COURT OF THE UNITED STATES:

The petition of the defendant, The City of New York, by Vincent R. Impellitteri, Mayor of the City of New York, respectfully shows that:

1. The City of New York, by this petition, seeks modification of a decree of this Court, as provided in paragraph "6" thereof, made and entered in the above-entitled cause on May 25, 1931 (October Term 1930, Original No. 16, 283 U. S. 805) so as to permit, among other things, an increased diversion of the waters of the Delaware River or its tributaries for water supply purposes from the equivalent of 440 millon gallons daily to the equivalent of 800 million gallons daily.

2. Said decree authorized the City of New York to divert, for water supply purposes, from an interstate stream, the Delaware River, or its tributaries, the equivalent of 440 million gallons of water daily upon certain terms and conditions, among others, that the City of New York, by impounding and controlling said water at its contemplated reservoirs and dams, would release water, pursuant to a certain formula set forth in said decree, so as to augment low water flows in the Delaware River.

3. The decree in the above-entitled cause resulted from the following:

In July 1927, the City of New York, through its Board of Water Supply, proposed to augment the City's water supply by the development and utilization of certain tributaries of the Delaware River, located exclusively within the State of New York. The plan contemplated the development of 600 million gallons daily of the waters of these tributaries in three stages, as follows:

First Stage—A dam and reservoir on the Neversink River (in conjunction with the development of the upper Rondout Creek, a tributary of the Hudson River) with necessary aqueducts.

Second Stage—A dam and reservoir on the East Branch of the Delaware River, with its delivery aqueduct to the Rondout Reservoir.

Third Stage—Dams and reservoirs on the Little Delaware River, the Willowemoc Creek and the Beaver Kill, together with the necessary aqueducts to connect with the Rondout Reservoir.

An application embodying such a plan was submitted to and approved in 1929 by the New York State regulatory body (New York State Water Power and Control Commission).

The State of New Jersey, by a bill in equity, sought in this Court to enjoin your petitioner and the State of New York from effectuating the plan, as aforesaid, for the use of Delaware River water for water supply purposes. The Commonwealth of Pennsylvania, contiguous to the Delaware River, intervened and participated in the proceedings.

When said cause came on to be heard, this Court by an order entered January 27, 1930, referred the entire controversy to a Special Master.

The Special Master, after extended hearings and the production of voluminous technical testimony and exhibits, rendered a report, confirmed by this Court on May 4, 1931, recommending that the City of New York be permitted to divert the equivalent of 440 million gallons of water per day from the Delaware River or its tributaries. This quantity of water could be obtained from the Neversink River and the East Branch of the Delaware River.

The report was predicated upon the rule that the states through which an interstate stream (the Delaware River) flows, and the political subdivisions and citizens of such states, are entitled to the use, enjoyment and appropriation of its water, contingent upon the facts and circumstances in each case, and based upon the principle of fair and equitable apportionment of the waters, as opposed to the application of strict common law rules governing riparian rights.

The Special Master's recommendations for a decree were adopted by this Court in its opinion (283 U. S. 336) and decree (283 U. S. 805).

The Special Master made a recommendation, among others, that this Court retain a continuing jurisdiction of the entire controversy because, as indicated in his report, the further utilization of the waters of the Delaware River, conditioned upon future needs and circumstances, could not at that time (1931) be forecast or foreseen with finality so as to permit a complete disposition and determination of the entire controversy.

The aforesaid recommendation was adopted by this Court in its opinion (283 U. S. 336) and incorporated in paragraph "6" of its decree in the following language:

> "6. Any of the parties hereto, complainant, defendants or intervenor, may apply at the foot of this decree for other or further action or relief and this Court retains jurisdiction of the suit for the purpose of any order or direction or modification of this decree, or any supplemental decree that it may deem at any time to be proper in relation to the subject matter in controversy."

4. This Court, by virtue of its plenary powers, the applicable statutes, and constitutional provisions, and its decree dated May 25, 1931, has retained a continuing jurisdiction of the entire controversy between and among the parties to this cause.

5. Since the entry of this decree in 1931, the consumption and use of water in the City of New York has been increasing and has reached the critical point where at present the existing New York City water supply facilities are overtaxed, and additional water supplies to be obtained from projects under construction are and will be insufficient to meet the anticipated expanding needs for water supplies in the City of New York and communities outside its borders to which the City of New York is by law obligated to supply water. This condition has arisen from and is at-

tributable to, among other factors, population increases, industrial expansion, and the greater use of water for industrial and domestic purposes.

6. Existing water facilities available to the City of New York are capable of producing a dependable safe yield of 1120 million gallons of water per day. These supplies are drawn from the following existing water systems: The Croton System, the Catskill System and the Rondout Reservoir, all located in upstate New York, and minor supplies from certain surface sources and wells on Long Island and Staten Island.

7. The average annual rate of consumption and use of water by the City of New York, including water supplied to outside communities, since the year 1945, has been as follows:

1945	1078.2	million	gallons	daily
1946	1141.2	"	"	"
1947	1189.4	"	"	"
1948	1203.7	"	"	"
1949	1201.1	"	"	"
1950	979.2	"	"	"
1951	1070.8	"	"	"

Due to the severe drought during parts of the years 1949 and 1950, the City of New York instituted a rigorous conservation program, imposing inconvenience on many and actual hardship on some of its citizens, the results of which are reflected in the above table for those years. The consumption for the year 1951 indicates a return to more normal usage and an actual resumption of the upward trend.

8. After the City of New York received permission from this Court to obtain the equivalent of 440 million gallons daily from the Delaware River or its tributaries, plans and projects were undertaken and are in process of construc-

tion that will permit the impounding and transmission of that quantity of water to the City of New York. The 440 million gallons daily will be taken from the waters of the Neversink River and of the East Branch of the Delaware River. It is expected that the Neversink dam, reservoir and aqueduct, will be completed in 1952 and supply your petitioner with an additional 105 million gallons daily, and the development of the East Branch of the Delaware will be completed approximately in 1956 and further increase the New York City water supply by about 335 million gallons daily.

9. Notwithstanding the increased supply resulting from completion of the developments involving the Neversink River and the East Branch of the Delaware River in 1956, it is expected that the use and consumption of water in the City of New York and outside communities will continue to increase during the succeeding decade so that, without the development of further water supplies, New York City would experience a severe and steadily intensifying water shortage about the year 1967 onward.

10. It is expected that from the year 1967 onward, consumption and use of water by the City of New York will progressively increase to an average of 1800 million gallons daily.

11. In anticipation of expected water supply requirements beyond the year 1967, the City of New York, through its Board of Water Supply, prepared plans for the development of the West Branch of the Delaware River by the construction of a dam and reservoir in the vicinity of Cannonsville, Delaware County, New York, and an aqueduct connecting it with the Rondout Reservoir, as indicated in the attached Exhibit "A". Said plans were submitted to and approved by the Board of Estimate of the City of New York by resolution dated January 26, 1950.

12. Said project includes the construction of, (1) an earth-fill type dam to a height of approximately 170 feet above the present stream bed, (2) a reservoir having a flow line at elevation 1150 feet above mean sea level and a capacity of about 97 billion gallons, and (3) an aqueduct tunnel approximately 44 miles long, with appurtenances to deliver the water into the Rondout Reservoir, for ultimate transmission to New York City.

13. The aforesaid project, from its inception to final completion, is estimated to require a period of approximately fifteen years in the absence of unforeseen war or national emergency conditions that would retard or delay construction due to restrictions on critical material, equipment, and labor.

14. Upon completion of the aforesaid project, your petitioner will have water supply systems, the total dependable safe yield of which will be 1800 million gallons of water daily.

15. Your petitioner adopted the aforesaid project because the development of the West Branch of the Delaware River is the most feasible and practical plan that will most economically supply the additional pure and wholesome water required for the future water supply needs of New York City. This plan, as the Third Stage of the Delaware Project, would integrate with and be a natural extension of the water supply facilities now in the process of construction and permitted under the decree of this Court, dated May 25, 1931.

16. The development of the West Branch of the Delaware River, as proposed herein, will not affect adversely the interests of the various states involved, and the additional allocation of water from the tributaries of the Delaware River sought by your petitioner is just and necessary and in accordance with the principles previously

adjudicated by this Court in the above-entitled cause. The additional quantities of water which will be released under the City's plan, when the Cannonsville Reservoir has been built, and which otherwise would go to waste during flood periods, will be of great and lasting benefit to every user of the Delaware River in the other states. In fact, the waters of the Delaware River and its tributaries, including the flood waters, which now run wasted to the sea, are of such quantity that, if conserved and properly regulated, they would be sufficient to meet all the needs, present and future, of the parties and their municipalities and citizens.

17. In January 1950, the plan and project was submitted to the New York State Water Power and Control Commission, and approved by said regulatory body in a decision dated November 14, 1950, attached hereto as Exhibit "B".

18. Said decision and approval contains a provision to the effect that it shall have no force and effect until and unless the City of New York has applied to and secured from this Court a modification of the decree entered May 25, 1931.

19. Your petitioner seeks, in addition to the relief sought by way of modification of said decree so as to provide for a total diversion of the equivalent of 800 million gallons daily of water from the Delaware River or its tributaries, a modification of paragraph "1", subdivision (b) of said decree, which provided a formula for releasing waters from the reservoirs to be constructed so as to augment low flows downstream in the river.

20. The release formula in said decree provides:

> "(b) At any time the stage of the Delaware River falls below .50 c.s.m. at Port Jervis, New York, or Trenton, New Jersey, or both (.50 c.s.m. being equivalent to a flow of 1,535 c.f.s. at Port Jervis and 3,400 c.f.s. at Trenton), water shall be released from one

or more of the impounding reservoirs of New York City in sufficient volume to restore the flow at Port Jervis and Trenton to .50 c.s.m., provided, however, that there is not required to be released at any time water in excess of 30% of the diversion area yield, and the diversion area yield having been ascertained to be 2.2. c.s.m., the maximum release required shall be 30% of that amount, or .66 cubic feet per second per square mile of the areas from which water is diverted.

"In determining the quantity of water to be released so as to add to the flow of the Delaware River, the Neversink River shall be treated as if it flowed into the Delaware River above Port Jervis, and the number of second feet of water released from the impounding reservoir on the Neversink River shall be added to the number of second feet of water released from other reservoirs, so as to determine whether the quantity of water, required by this decree to be released, has been released."

21. The City of New York seeks a modification of said water release formula provided in said decree by substituting the following formula:

A. Whenever the natural flow of the tributary under development, at its point of development, exceeds its 4,000 c.f.s. control rate, no release of water from storage to maintain the flow of the tributary need be made.

B. Whenever the natural flow of the tributary under development, at its point of development, falls below its 4,000 c.f.s. control rate, the flow of the tributary immediately below the point of development shall be maintained as follows:

1. Whenever the natural flow of the tributary falls below its 2,500 c.f.s. control rate, the rate of flow

required to be maintained shall be fifty per cent of the mean-annual-yield of the stream at its point of development.

2. Whenever the natural flow of the tributary is between its 2,500 c.f.s. control rate and its 4,000 c.f.s. control rate, the rate of flow required to be maintained shall be twenty-five per cent of the mean-annual-yield of the stream at its point of development.

C. The term "control rate" as used above, means certain rates of natural flow at the point of development, used in fixing the rate of flow to be maintained below that point. From the record of flow of the Delaware River at the Trenton gage during the thirteen year period, October 1, 1928 to September 30, 1941, both inclusive, it has been determined that the natural daily flows of the river at that point exceed 4,000 c.f.s. for seventy-six per cent of the time and exceed 2,500 c.f.s. for ninety per cent of the time. From the measured or computed rates of natural flow at each proposed point of development during the same period, rates of flow have been determined which will be exceeded by the natural flow for the same percentages of time, seventy-six per cent, and ninety per cent, as have been determined for the Trenton gage. These rates of flow are termed the 4,000 c.f.s. and 2,500 c.f.s. control rates for that point of development.

The term "mean-annual-yield", as used above, means the average daily rate of natural run-off of the stream at its point of development for the period between October 1, 1928 and September 30, 1941, both inclusive. In determining the mean-annual-yield as above set forth, measured rates of flow shall be used as far as they may be available. Otherwise such yield shall be derived from the records of the nearest, most suitable gaging stations, using accepted hydrological methods for making the computations.

The term "point of development", as used above, means the place at which the lowermost structure, dam, intake or other works, is maintained for the purpose of making water available for diversion.

The term "natural flow", as used above, means the rate of flow of the stream as it would occur if it were not affected materially by artificial works or developments.

22. The substitution of the aforesaid water release formula for the existing water release formula contained in said decree will enable and require the petitioner to release more water during periods of particularly low stream flows, resulting in more beneficial water conditions in the Delaware River and its tributaries below the points of diversion, all of which will inure to the benefit of the states, municipalities, or other users of the waters of the Delaware River. In addition, the substitution recommended will relieve the City of New York from responsibility in connection with any diversion from the Delaware River or its tributaries originating down stream from the dams and reservoirs of the City of New York.

23. Upon information and belief, all parties to this cause are in accord that the release water formula proposed by your petitioner is and would be preferable to the existing water release formula contained in said decree.

24. Your petitioner has made no previous application for the relief sought herein.

WHEREFORE, the City of New York, the petitioner herein, respectfully petitions this Court to modify paragraph "1" of said decree entered May 25, 1931, so as to provide for an increase of the diversion by the petitioner of the waters of the Delaware River or its tributaries from the equivalent of 440 million gallons of water daily to the equivalent of 800 million gallons of water daily, and that subdivision

(b) of paragraph "1" of said decree be modified as prayed for in paragraph numbered "21" hereof, and that the Court make such other and further order in the premises as to the Court shall seem just.

Dated: April 1st, 1952.

Respectfully submitted,

CITY OF NEW YORK

By VINCENT R. IMPELLITTERI
Mayor

Office and P. O. Address:
City Hall,
New York 7, N. Y.

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

VINCENT R. IMPELLITTERI, being duly sworn, says:

That he is the duly elected and qualified Mayor of the City of New York, the petitioner above named; that he has read the foregoing petition and knows the contents thereof; that the same is true to his own knowledge except as to the matters therein stated to be alleged on information and belief and as to those matters he believes it to be true.

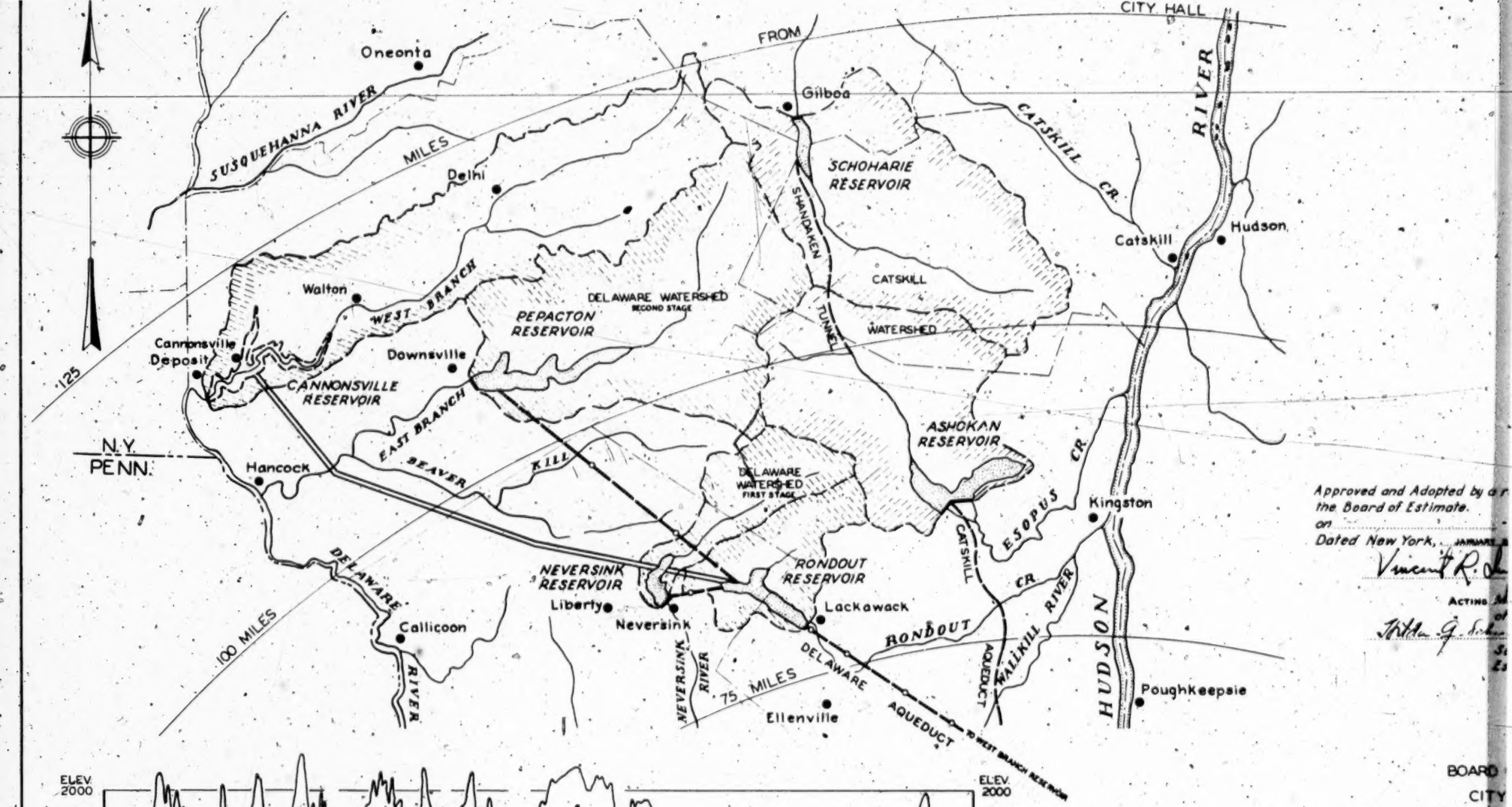
VINCENT R. IMPELLITTERI

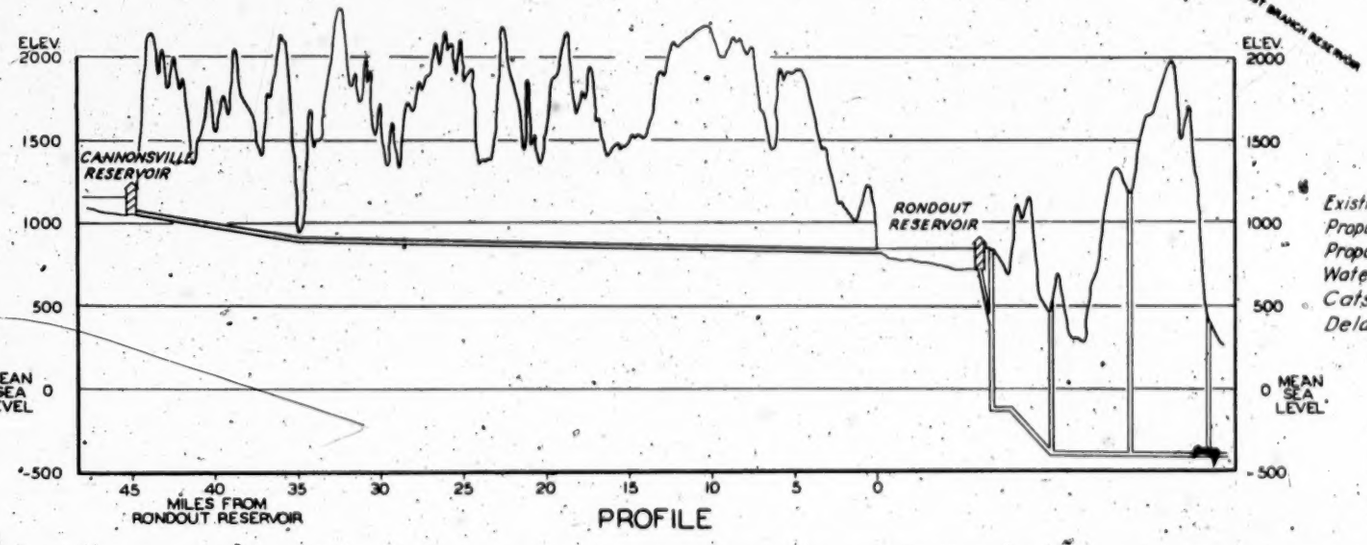
Subscribed and sworn to before me this
1st day of April, 1952.

ARTHUR D. WALKER
Notary Public, State of New York
Qualified in Queens Co. No. 41-9505400
Cert. filed with N. Y. County Clerk's Office
Term Expires March 30, 1954

Exhibit A.

(See opposite ☞)





Approved and Adopted by a r
the Board of Estimate.
on
Dated New York, JANUARY

Vincent R.

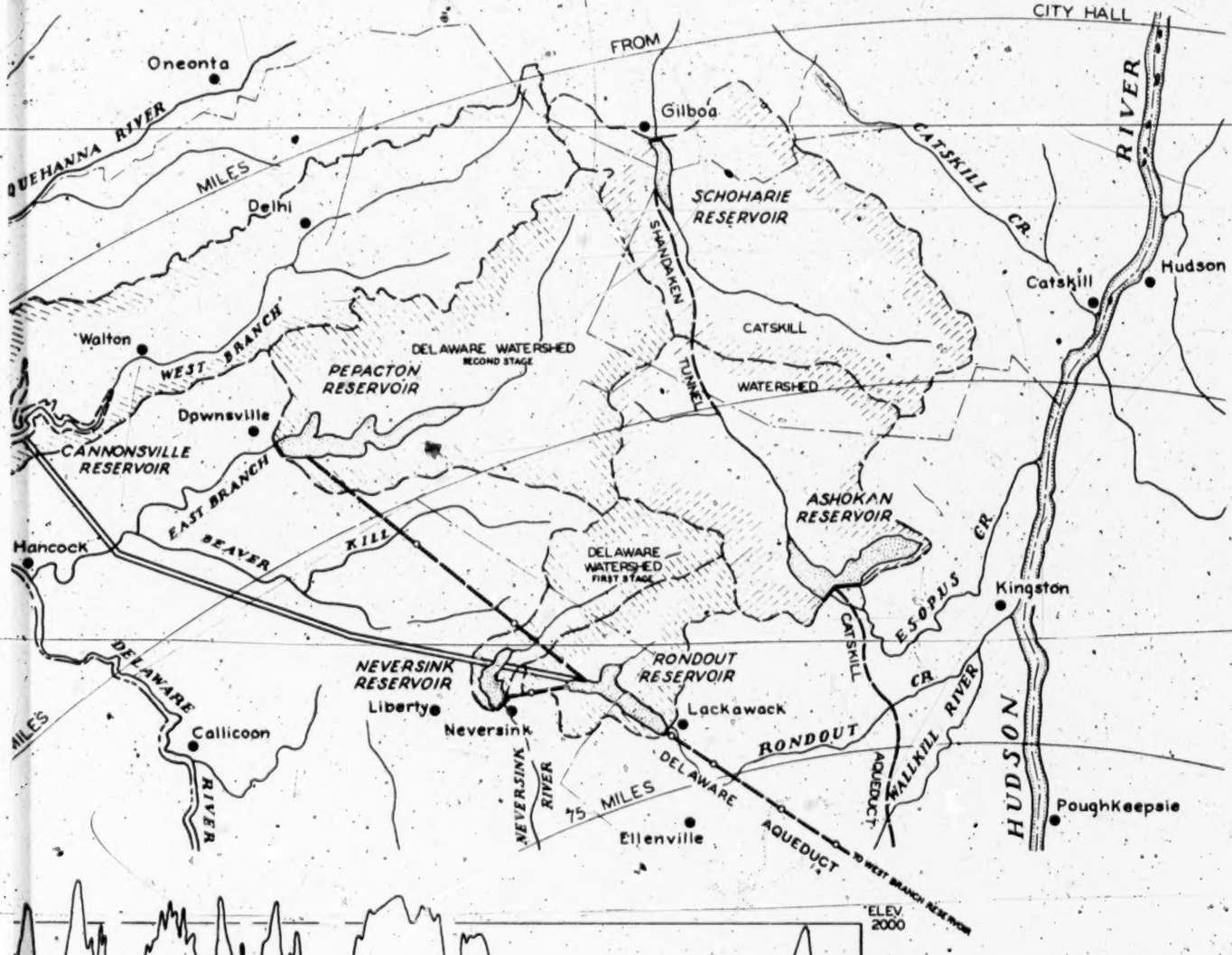
ACTING

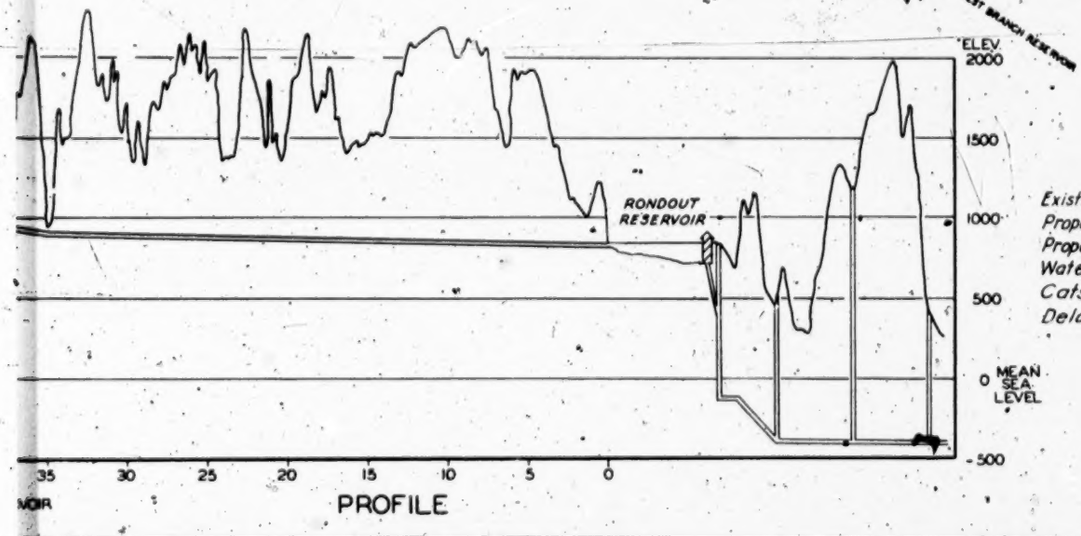
BOARD
CITY
MAP
SOURCE OF A
AN ADDITIO
CITY

Existing water surfaces are shown in light blue.
Proposed reservoir is shown in dark blue.
Proposed tunnel line is shown in red.
Watershed area under proposed plan is shown in pink.
Catskill watershed area is outlined in light brown.
Delaware watershed area is outlined in green.

President
Commissioners
Board of Water Supply

EXHIBIT A





Approved and Adopted by a resolution of the Board of Estimate.
on
Dated New York, JANUARY 28, 1949

Vincent R. Impellitteri
Acting Mayor and Chairman of the Board of Estimate.

Hilda G. Schwartz
Secretary of the Board of Estimate.

Existing water surfaces are shown in light blue.
Proposed reservoir is shown in dark blue.
Proposed tunnel line is shown in red.
Watershed area under proposed plan is shown in pink.
Catskill watershed area is outlined in light brown.
Delaware watershed area is outlined in green.

BOARD OF WATER SUPPLY
OF THE
CITY OF NEW YORK

MAP AND PROFILE

SHOWING

SOURCE OF, AND MANNER OF OBTAINING AN ADDITIONAL SUPPLY OF WATER

FOR THE

CITY OF NEW YORK

5 0 5 10 MI.

December 20, 1949

John M. Fitzgerald
Chief Engineer

Henry H. Amberg, President
Commissioners
Board of Water Supply

Roger H. Armstrong
Tobias Hochlerner, Chairman
Russell Sexton
Consulting Engineers.

Acc. NS-62

Exhibit B.

State of New York
Department of Conservation
WATER POWER AND CONTROL COMMISSION

Water Supply Application No. 2005

In the Matter of the Application
of the
CITY OF NEW YORK
to the Water Power and Control Commission for approval of its map, profile and plan for securing an additional supply of water from the West Branch of the Delaware River.

Thirtieth Application

DECISION

Application filed	Jan. 30, 1950
Hearing held in Delhi	March 22, 23 April 25, 26 June 5, 6, 7 July 18, 19, 1950
Decision	Nov. 14, 1950

DECISION ON WATER SUPPLY APPLICATION No. 2005

PROCEEDINGS

Hon. Vincent R. Impellitteri, acting mayor of the city of New York, on behalf and in the name of said municipality, on January 27, 1950 made application to the Water Power and Control Commission for approval of the plans of said city for the acquisition or taking of an additional

water supply, the taking or condemnation of lands for an additional source of water supply and of the construction proposed in connection therewith. This application was filed in the office of the Commission on January 30, 1950.

After due notice published in the Deposit Courier, the Walton Reporter, the Hancock Herald, the Delaware Republican-Express of Delhi, the Stamford Mirror Recorder, the Sullivan County Democrat of Callicoon, the Union-Gazette of Port Jervis, the Binghamton Press, the Oneonta Star, the New York Times, the New York Herald Tribune, the New York World Telegram and Sun and the New York City Record, the hearing on this application was held before John C. Thompson, Executive Engineer of the Commission, in the Village Hall in the village of Delhi, on March 22, 1950 at 10:00 o'clock in the forenoon and thereafter was continued, pursuant to adjournments duly taken, at the same location on March 23, April 25 and 26, June 5, 6 and 7, and July 18 and 19, 1950. On this last named date counsel for the various parties appearing were directed to prepare and file with the Commission such briefs or reply briefs as desired not later than August 22, 1950. At this hearing the Commission considered the petition, maps and plans submitted, examined witnesses and heard arguments for and against the project as shown by the minutes. The petitioner was represented by Hon. John P. McGrath, Corporation Counsel (Hon. James J. Thornton and Hon. John Suglia, Assistant Corporation Counsels, of counsel). Objections were filed by the county of Delaware, represented at the hearing by Lynn E. Dreyfus, Esq., county attorney; by the village of Delhi, represented by Hamilton J. Hewett, Esq., village attorney; by the towns of Walton and Tompkins, represented by William S. Fancher, Esq., their attorney; by the Walton Chamber of Commerce, represented by Paul F. Eaton, Esq., its attorney;

by the town of Deposit and the village of Deposit, represented by J. Leland Rickard, Esq., their attorney; by the village of Walton, represented by Arthur E. Conner, Esq., Corporation Counsel; by the hamlet of Rock Royal, represented by Herman E. Gottfried, Esq., its attorney; and by various sportsmen's clubs, business corporations and a large number of indvidual property owners, many of whom appeared in person at the hearing or were represented at it by one of the above noted attorneys. The State Department of Health appeared at the hearing by Charles R. Cox, Chief of Water Supply Section of the Bureau of Environmental Sanitation and the State Department of Conservation appeared by W. C. Senning, Assistant Director of its Division of Fish and Game and by Cecil Heacox, Senior Aquatic Biologist, Southern Fisheries District.

On April 19, 1950 the Commission caused an engineering inspection to be made of the site of the proposed works and of the proposed additional source of water supply.

PROJECT

The City of New York now asks the approval of the Commission for its plan to carry out the so-called Third Stage development of its Delaware River project. It is now proposed to construct for water supply purposes a storage reservoir with a capacity of about 97 billion gallons on the west branch of the Delaware River near Cannonsville about 7 miles northeast of the village of Deposit. The reservoir is to be formed by the construction of an earth-fill type dam. An aqueduct tunnel approximately 44 miles in length is to be constructed to deliver water from this reservoir by gravity to the city's Rondout reservoir now being constructed on Rondout Creek near Lackawack. The total estimated cost of constructing this reservoir and the aqueduct from it is $140,000,000.

Exhibit B.

OBJECTIONS

Delaware county and the towns appearing in opposition object to the approval of this application on the grounds that there will be a considerable reduction in assessed valuations within these areas caused by the construction of this proposed reservoir with resultant decreases in tax revenues now taken in by such municipalities; that the dairy industry within the county, reputably one of the greatest milk producing sections of the state, will be almost completely ruined thereby; that already an unnecessarily large percentage of this county is used for reservoir purposes, for both water supply and flood control basins; and that the construction of this reservoir will bring about serious financial losses to the inhabitants of this area as well as displacement of a number of persons from their homes, in many cases occupied by them for years. The villages are opposed to approval of the project on similar grounds and also on the additional ground that they probably will be faced with the necessity of constructing and improving local facilities for disposal of sewage wastes in order to protect the water supply from this reservoir. The objections of the various business corporations are based on the allegation that they will be faced with serious financial losses and with the loss of many of their business properties. The sportsmen, through their organized clubs, allege that the character and the use of the west branch of the Delaware and its tributaries are ideal as fishing streams and that such use will be seriously affected if the proposed project is carried out. The individual property owners object to approval on the grounds that the carrying out of this project will result in serious financial losses to them with inadequate compensation for the lands required and taken, the probability that settlement of claims for such compensation will be long deferred and a general opposition to any displacement from long occupied home-

steads and the severance of long established neighborhood ties.

All of the objectors joined in the statement that there is no necessity for the project as proposed and that a more suitable and economical source, which would more adequately meet the needs of the city, could be secured from the Hudson River by the construction of a barrage dam on that river between Chelsea and Haverstraw. It has also been stated that if the city were to practice more rigid conservation of its water supply and meter all water used therein, no additional supply would be needed by it.

After due study of the petition and its exhibits, of the evidence and arguments given at the hearing and of the briefs submitted, the Commission finds as follows:

FINDINGS OF FACT

1. The City of New York is the largest city in the United States and has since about 1653 existed as a municipal corporation located at the extreme southerly end of the State facing on the Atlantic ocean.

2. As now constituted, the city includes five of the counties of the State, namely, Bronx County on the mainland, New York County on Manhattan Island, Richmond County on Staten Island and Kings and Queens Counties on the westerly end of Long Island.

3. According to the 1940 census, the city had a population of 7,454,995, and it is estimated that its present population is about 8,000,000.

4. The assessed valuation of all taxable real property located within the city limits is in excess of $18,000,000,000 and the city has outstanding water bonds in excess of $586,-

000,000 with, however, certain credits in its sinking funds for water supply purposes to an extent of about $183,000,000. The entire gross funded debt of the city at present is about $3,000,000,000.

5. The problem of furnishing a suitable and adequate water supply for a city of this great size is a stupendous problem with which it has been faced for many years. Originally the system consisted primarily of several privately owned systems serving limited areas which were eventually consolidated into the present city. Certain of these privately owned systems still are in existence and serve parts of the city but for the most part the private systems have been taken over by the municipality and have been incorporated into the present municipally owned system.

6. Water for the city is now obtained from many sources, principal among them being its surface water supplies obtained by gravity from the upstate Croton and Catskill watersheds. Additional water also is obtained from wells on Long Island and Staten Island.

7. The estimated safe yield of the existing city-owned sources of supply is about 1,000 million gallons daily, while the average demands on the city's system during the past few years has been approximately 1,200 million gallons daily. Except during the most recent year, the city has been able to meet this deficiency because of abnormally high rainfall on the watershed areas with the production of greater quantities of water than the estimated safe yield of these sheds and the absence of any extended periods of severe drought.

8. During the fall of 1949, a severe water shortage, aggravated by dry weather conditions occurred and it became necessary for the city to take drastic steps to reduce

consumption. The city, during this crisis, has been successful in reducing its consumption to an amount below 1,000 million gallons daily through the cooperation of the consumers in the city but this condition of curtailed use cannot be expected to be continued for extended periods and provision must be made to prevent reoccurrence of such a shortage in the future and to provide for expected rising demands.

9. Some of the conservation measures employed in this crisis will undoubtedly have permanent satisfactory results and will be reflected in savings in water consumption for many years to come. With regard to the allegation of excessive use of water in the city it should be noted that in a city of the size and character of the City of New York, normal average consumption will ordinarily exceed that of cities with smaller populations and with less industrial usage. The per capita use of water in the City of New York compares favorably with similar use in other large cities throughout the nation.

10. The necessity for additional sources of water supply for the city was recognized as far back as the early nineteen-twenties and on May 5, 1929 this Commission approved of a water supply application by the city for the development of the Delaware River and its tributaries and of the upper Rondout Creek to provide additional water for the city. (Water Supply Application No. 466; 38 St. Dept. Repts. 511). Subsequently, this matter was taken to the courts and finally, in a modified form, it was approved by the Supreme Court of the United States on May 4, 1931 (New Jersey v. New York 283 U. S. 336) and the proposed diversion authorized.

11. The city, in that application (No. 466), asked for permission to divert 600 million gallons daily from the

Delaware River and its tributaries and 100 million gallons daily from the upper Rondout but the Supreme Court limited the diversion from the Delaware and its tributaries to 440 million gallons daily. The city has now under way the construction of the necessary reservoirs on the Neversink River and East Branch of the Delaware to provide for such a diversion. The decision of the court, however, was made without prejudice to an application to it for additional relief should additional diversions become necessary at some future time. The proposed diversion from the upper Rondout was not affected by this decision.

12. The carrying out of the project, as finally authorized and approved in 1931, because of financial conditions was not started until 1936. Later, construction work was almost completely stopped by World War II and it has not yet been fully completed.

13. Under that project all water therefrom will reach the city's distribution system by gravity. A tunnel between the site of the city's proposed reservoir on upper Rondout Creek at Lackawack and the distribution facilities in the city has been constructed with a carrying capacity of about 900 million gallons daily. Although the reservoir on Rondout Creek has not yet been finished, water from the stream in varying amounts, depending on actual stream flow, is now being diverted into the tunnel to the city's distribution system.

14. This first reservoir under the original Delaware project is expected to be completed by the end of this year but little or no water above that now being diverted can be anticipated from this source before late 1951. Even when this reservoir is finally completed, it will add to the water supply resources of the city only about 127

million gallons daily until such time as the remaining Delaware reservoirs and their connecting works have been completed.

15. The remaining reservoirs of this project, one on the Neversink River near Neversink and the Pepacton reservoir on the east branch of the Delaware River above Downsville with their connecting works to Rondout reservoir, are expected to be completed about 1952 and 1956 respectively.

16. In view of the serious emergency of the fall of 1949 and the necessity for meeting pressing needs of the city, pending the completion of the Delaware project, the Commission authorized the city to acquire an emergency supply of water to the extent of 100 million gallons daily, from the Hudson River near Chelsea under a decision of January 16, 1950 (Water Supply Application No. 1994).

17. The normal consumption of water in the city has steadily been increasing and it is now expected that by 1960 the total demands on the city's sources of supply will be about 1440 million gallons daily. The safe dependable yield of all of the city's sources of supply at such time, with the present Delaware project completed and in operation, will be approximately equal to that demand.

18. It is obvious that the city should take immediate steps to acquire and develop an additional suitable source of supply in order that it will be in a position to meet demands in the years subsequent to 1960 and so that in the meantime it can operate its system with some degree of freedom and will not be compelled to use its emergency sources of supply.

19. The city, recognizing this need for additional water, through its Board of Estimate, directed the Board of Water Supply of the city, by a resolution dated December 18, 1947, to investigate additional sources of supply to meet future requirements.

20. Under date of December 28, 1949, the Board of Water Supply submitted the results of these investigations together with its recommendations thereon to the Board of Estimate and this latter board, after a public hearing held on January 26, 1950, adopted on the same day a resolution authorizing the project now proposed, the making of an application to this Commission for its approval and the taking of such further steps as might be necessary to secure the prompt and efficient execution of the plan and project.

21. The officials of the city are aware that, before any additional water may be secured from the Delaware river basin, the city must apply to and secure from the Supreme Court of the United States a modification of the decree issued by that court which limited diversions from such basin by the city to an amount not in excess of 440 million gallons daily. The city, however, is of the opinion that the prior consent and approval of this Commission for the use of these additional waters are prerequisites to its application to that court.

22. The Commission, in turn, is fully cognizant of the limitations imposed upon the city and the State by the Supreme Court and entertains this application for the project now proposed with complete respect for the decree both in letter and in spirit. The action of the Commission hereon must, of necessity, be subject to the limitations imposed by that court and does not intend to

purport to permit diversions in excess of 440 million gallons daily unless and until the decree of the Supreme Court is modified to permit any excess above the said amount. Thereafter, this action shall be effective only within such new limitations as might be fixed by that court.

23. The city now asks approval for the construction of an earth-fill type dam on the west branch of the Delaware River in the neighborhood of Cannonsville in Delaware County. The dam is to be approximately 170 feet in height above the present stream bed and is to impound about 97 billion gallons of water to a flow line elevation of 1150 feet above mean sea level. The project includes the construction of a waste weir, a weir chamber, a release chamber and an effluent chamber and the relocation of existing roads and highways affected by the construction. It is expected that it will take upwards of 10 years to construct the entire project and to make water available from it to the city.

24. The impounding reservoir will have a watershed drainage area of about 450 square miles with an estimated dependable yield of approximately 388 million gallons daily through the storage proposed.

25. Water from this reservoir is to be conducted by gravity to Rondout reservoir from which it will then flow by gravity into the Delaware aqueduct tunnel and eventually reach the city's distribution system.

26. When the so-called first and second stages of the Delaware water supply project, including Rondout, Neversink and Pepacton reservoirs with their connecting works to the city's water supply system, are completed there will be delivered to the city through the Delaware aqueduct a total of 567 million gallons of water daily, consist-

ing of 127 million gallons daily from the Rondout and 440 million gallons daily, the maximum permitted by the decree of the United States Supreme Court, from the Neversink and Pepacton reservoirs in the Delaware basin.

27. The Neversink and Pepacton reservoirs, when completely developed, however, will have an estimated dependable yield of 553 million gallons daily, an excess of 113 million gallons daily over and above the 440 million gallons permitted to be diverted. Of this excess an average of 13 million gallons daily from the Neversink reservoir and 52 million gallons daily from the Pepacton reservoir will be needed for releases to augment dry weather flow in the Delaware river as required by the decree of the United States Supreme Court. This still leaves out of this excess some 48 million gallons daily under that decree which is not now available to the city.

28. The Delaware aqueduct with a capacity of 900 million gallons daily has more than sufficient excess capacity to carry to the city the 285 million gallons daily of additional water which will be made available by the Cannonsville reservoir.

29. It is estimated that the amount of water asked for by the present project will, together with the amounts secured from existing sources and from those being presently developed, be in the neighborhood of 1800 million gallons daily, an amount which is expected to be sufficient to meet present and future needs of the city to at least the year 1980.

30. Preliminary analyses and investigations which have been made of the waters in the west branch of the Delaware river indicate that the water from this basin will

generally have about the same characteristics as exist in connection with water derived from the Catskill basin. A water of satisfactory and suitable quality to the consumers in the city should result if the water from the proposed source is given the same type of treatment now provided the water from the Catskill system.

31. The city proposes to protect the purity of this water by rigid restrictions on the character and use of the watershed tributary to the reservoir, by long storage of it in successive reservoirs and multiple chlorination. No other treatment is now proposed nor does any additional treatment appear necessary at present. The Commission should, however, reserve the right to require the taking of additional sanitary precautions or the further treatment or purification should future analyses and inspections indicate a need for such action.

32. The water from this source, as it approaches the city, will progressively improve in quality. However, it probably should not be considered as safely potable without additional treatment until it has reached Hillview or a similar distribution reservoir.

33. In general the watershed drainage area tributary to the proposed new reservoir is not heavily populated although it contains a concentration in population in a number of communities and hamlets among which are the villages of Hobart, Delhi, Stamford and Walton. The area is used primarily for farming purposes, largely in the production of milk and dairy products.

34. Sewage effluent from the communities and inhabitants throughout the drainage area eventually discharges either through sewerage systems or directly into the river.

Some degree of treatment of sewage effluent is provided by certain of the municipalities in the shed.

35. The officials of the city have indicated that where it is deemed necessary to provide additional treatment over and above that now provided or which might be required by the recently created State Water Pollution Board, in its study and classification of streams, costs of such additional treatment will be financed by the city. The Commission must require that the city, at its own expense, provide such treatment works as the State Department of Health might deem necessary in order to provide a satisfactory raw water at the reservoir site.

36. The officials of the city and the Conservation Department have agreed and stipulated for the record in this case and in the event of the approval of this project that, in the interest of the propagation and preservation of fish life in the west branch of the Delaware river below the site of the proposed dam, and in order that the recreational value of this stream will not be unduly decreased, the city will release from the reservoir between December 1 of each year and April 15 of the succeeding year 5 million gallons of water daily and during the remaining portion of each and every year 15 million gallons of water daily. In addition, the city has agreed, at its own expense, to construct barrier dams on streams tributary to this reservoir at sites agreed upon with representatives of the Conservation Department on property owned or to be acquired by the city in connection with this project.

37. In view of such stipulation and agreement, the Commission must require that the above prescribed flows be maintained at all times and that the cost of the construc-

tion and maintenance of such barrier dams as are agreed upon on property owned or acquired by the city in this project be at the expense of the city.

38. Certain of the communities in the watershed of the west branch both above and below the site of the proposed dam may now secure or in the future desire to secure a supply of water from the west branch of the Delaware River or its tributaries. The Commission must protect the rights of present users and must reserve the right to permit, upon due application therefor, such additional or new taking by any communities in the watershed through either a municipally or privately owned water supply system.

39. Under the Board of Water Supply Act, (Chapter 724 Laws 1905 as last amended) the city, under certain conditions, is required to permit the taking of a water supply by municipally owned public water supply systems from its water supply facilities. Since, normally, on all water supply applications this Commission is required to pass upon the sanitary aspects of such applications, we must, under these circumstances, require the making of an application by any taker of such water in order that a determination can be made on this point and such conditions as might appear proper and necessary be imposed to insure the distribution of water of a satisfactory sanitary quality.

40. The estimated cost of the project now proposed, including the construction of the reservoir, the aqueduct tunnel and appurtenances thereto, land acquisition, and damages and incidental expenses is $140,000,000, an amount which should be sufficient to permit the project to be carried out.

Exhibit B.

41. No detailed plans and specifications have been submitted with the application and the Commission must require that before any work on the project or any part thereof is carried out, detailed plans and specifications be submitted to it for its approval and the work thereafter carried out in accordance with such approved plans and specifications.

42. Land required for the project is to be secured by the city either by direct agreement with and purchase from the owners thereof or by condemnation proceedings in accordance with the provisions of the Board of Water Supply Act.

43. In their opposition to the granting of approval of the project proposed by the city, the attorneys for the objectors joined in stating that there is no public necessity for the project and that if any necessity does exist, a more suitable and economical source can more readily be developed by the use of Hudson River as a source of water supply. A considerable amount of testimony was taken purporting to show that by the construction of a barrage dam across the Hudson River between Chelsea and Haverstraw, that river would provide the logical source of supply for the city of New York and would be capable of meeting the needs of the city for some unlimited period of time. Under this plan, water would be pumped from the Hudson River to a treatment plant and from there repumped into existing conduits to the city.

44. The city, by various expert witnesses it produced at the hearing, conclusively has shown to the satisfaction of the Commission that the plan proposed for use of the Hudson River would be uneconomical, the cost of construction of such a development, including damages caused

thereby, greatly exceeding the cost of the project now proposed by the city, and the annual cost of the operation and maintenance of the Hudson River proposal much greater than that of the Cannonsville project. In addition, it has been shown that raw water from the Hudson River is far inferior in quality to that from the west branch of the Delaware River and even if it were afforded complete and elaborate treatment, Hudson River water would still be of a questionable physical character. The best sanitary engineering practice, and one adopted by the Special Master and the Court in *New Jersey* v. *New York,* 283 U. S. 336, is to obtain the purest water possible for a municipal supply and to make this water better and not to obtain less desirable water and render it acceptable by treatment and purification.

45. The Commission, in approving the application of New York City for the taking of the Hudson River in the vicinity of Chelsea as an emergency source of water supply in its decision on Water Supply Application No. 1994 under Finding No. 20 stated as follows: "The physical and sanitary quality of the Hudson River water at this location is unsatisfactory for continued domestic use. Its use as a supply of water for public consumption can be countenanced only because of the existing water supply crisis in the city and then only after elaborate treatment and adequate dilution with other waters from the city's present upland sources of supply. Detention in the city's reservoir below the point of its entrance into the aqueduct must be as long as possible in order to improve its natural qualities. During the operation of this pumping station, the greatest care must be taken to insure the production of a satisfactory supply. Even under such conditions, the resulting mixture of Hudson River water with water from the city's other sources will be inferior in quality to that

now supplied in the city", and under Finding No. 21 of that decision it stated as follows: "If this application were made by the city for approval of the use of the Hudson River as a permanent source of supply, it is very doubtful whether the Commission would approve of it even with the treatment now proposed. Any approval contained herein is intended to permit the city to use this water only during the present emergency or until final development of the Delaware project as now being constructed has been completed. Upon completion of that project and unless further approval of this Commission is obtained, the city must abandon this pumping station and remove therefrom any equipment which might make its further use as a source of supply possible."

46. Reference has been made by the objectors to the possible future improvement in the condition of the Hudson River by the activities of the recently created State Water Pollution Board. The Commission can only consider conditions as they now exist and for the present must reiterate its former findings and also concur with the conclusions by the experts for the city that the Hudson River below the Troy dam generally is not at the present time suitable from a sanitary point of view as a permanent source of public water supply.

47. It is possible that with functioning of the new State Water Pollution Board and with the possible development of new techniques and processes for the treatment of water, this river may in time be capable of producing a water of completely acceptable quality but until such time or unless grave water supply crisis arise such as to permit the acceptance of a water of inferior quality the Commission does not believe the use of this river, at or near the suggested point of diversion, should be permitted as a source of permanent public water supply.

Exhibit B.

48. At one point in the proceedings on this application, certain of the objectors brought to the Commission's attention the appointment by the city of another group of engineers to study the city's water supply requirements and requested the Commission to withhold any action on the present application until the report of this group of engineers and its recommendations have been made available. The Commission does not believe that, particularly in view of the apparent pressing need for water in the city and of the length of time needed to consummate a project of such magnitude, action on this application should be delayed unduly. It should be pointed out that our approval is never directive but only permissive and should the city, upon receipt of the report of this group of engineers, decide to abandon the present project and adopt a new one, it can do so.

49. The question of damages and matters related to any delay in making payment of claims was raised by some of the individual objectors and their attorneys. The method of determination of damages and the manner of their payment are matters which are provided for by the provisions of the Board of Water Supply Act.

50. The various towns and the county have been concerned with the possible reduction in assessed valuations of property located within their confines with resultant tax losses to such entities. The city at present is required to meet taxes on certain of its structures which are located outside of its limits and there is every reason to believe that such practice will continue in the future for such additional structures so constructed.

51. The objections of the individuals who protest against possible eviction from their homes and farms, should this project be carried out, naturally arouse the sympathies of

this Commission. It is maintained by many of the objectors that mere financial remuneration can never properly compensate owners for such losses as disruption of old friendships and neighborhood ties. However, as an administrative agency created by the Legislature to pass upon projects such as this, our primary statutory duty is to determine if there is public necessity for the project. When we have so determined, the fixing and appraising of damages is by law vested in the courts and not in this Commission.

52. The Board of Water Supply of the city and its various consulting agencies have for many years given consideration to the development of additional sources of water supply including the Hudson River and they have come to the conclusion and have recommended that the project proposed is the most feasible and economical and one which would most readily tie into the city's present water supply system.

53. The carrying out of these plans will have no adverse effect on the water supply interests of any other municipality or other civil division of the State except insofar as they may affect the interests of the present inhabitants of the watershed of the west branch of the Delaware River.

54. The legal damages which may be caused by the execution of the plans of the petitioner are not such as to require any special consideration or legislative enactment in order that they equitably may be determined and paid.

CONDITIONS

The Commission finds it necessary, in order to protect the water supply and the interests of the applicant and of the inhabitants of the territory supplied by it with

water, to protect the water supply and interests of any other municipal corporation or other civil division of the State and the inhabitants thereof, to protect the water supply and interests of any other person or waterworks corporation engaged in supplying water to any other municipal corporation or other civil division of the State and the inhabitants thereof, to bring into cooperation all municipal corporations or other civil divisions of the State which may be affected thereby, to make just and equitable the submitted plan or scheme to determine and provide for the payment of the proper compensation for any and all legal damages to persons or property whether direct or indirect which will result from the acquiring of said lands and the execution of said plans, and to make safe all dams, reservoirs or other structures to be constructed by said plans, that the application, maps and plans submitted should be modified to conform to the following:

A. This decision and approval shall have no force and effect until and unless the City of New York has applied to and secured from the United States Supreme Court a modification of its decree in New Jersey v. New York et al, rendered on May 25, 1931 and reported in 283 U. S. 805, in which the city is restrained from diverting from the Delaware River or its tributaries to the city's water supply system water in excess of 440 million gallons daily. Thereafter this decision and approval shall be effective only within the limitations which that court might impose.

B. Nothing in this decision and approval contained shall be construed as giving the City of New York rights in the waters for public water supply purposes in the watershed of the West Branch of the Delaware River superior to those of the inhabitants of such watershed. The rights of the inhabi-

tants of this watershed to be supplied with water from it either by privately or publicly owned water supply systems now in existence shall in no way be affected by this decision. The Commission reserves the right to authorize the taking of water from this watershed for the supply of any publicly or privately owned public water supply system which may in the future be constructed to meet the needs of the inhabitants thereof not now supplied by such systems.

C. Before any water from this proposed source may be used for any purpose, the officials of the city, with the approval of the State Department of Health, must have enacted and put into effect rules and regulations for the protection from contamination of the water from this additional source of water supply, must have put this watershed into condition conformable with such rules and regulations and to that end must acquire such lands, rights and easements and construct or provide for such structures including sewerage systems and sewage treatment plants as the State Department of Health may deem necessary and the city must thereafter operate and maintain or provide for the operation and maintenance of such works. It is recommended that these rules and regulations be so enacted as to permit the continued enjoyment of the recreational facilities of this watershed by permitting a reasonable use of this watershed and the reservoir to be built hereunder for hunting, fishing and other allied uses insofar as such uses may be compatible with the interests of public health.

D. The City of New York must, upon completion of this project, release from this reservoir at least 5

million gallons of water daily between December 1 of each year and April 15 of the succeeding year and at least 15 million gallons of water daily during the remaining portion of each and every year for the maintenance of a suitable stream flow below the dam. The city also must construct and maintain on property owned or to be acquired by it and at its own expense, barrier dams on streams tributary to this reservoir at sites to be agreed upon with representatives of the Conservation Department.

E. Under this decision and approval the City of New York shall permit no water from this new source of supply to be taken from any part of its Delaware water supply facilities above the outlet works at Hillview or a similar distribution reservoir unless and until the prior consent and approval of the Commission has been secured by the taker of the supply of such water. This condition shall not be construed as denying the rights of a taker to secure a supply authorized under the Board of Water Supply Act but shall be concerned only with the sanitary aspects of such a supply. Under these circumstances, the taker shall file an application with this Commission in order that the Commission might make its determination as to suitability of the supply from a sanitary viewpoint and attach such conditions as might be required to make the water of a safe potable character prior to its use in any public water supply system.

F. Before delivery of any water from this source to the distribution system of the city, such water shall first have been treated by sterilization in a manner satisfactory to this Commission.

Exhibit B.

G. The Commission reserves the right to require the taking of further sanitary precautions or the treatment or purification of the water from this source should future analyses or inspections show a need for so doing.

H. Prior to starting work on any construction authorized by this decision and approval, detailed plans of the structures proposed to be built and specifications for such work must have been submitted to and approved by this Commission. Thereafter such construction work must be entirely completed in full accordance with the plans and specifications which have been so submitted and approved.

I. Within one year after the entry of an order of the Supreme Court of the United States modifying its decree so as to permit the city to increase its diversion of water from the Delaware River and its tributaries as herein approved, the city must submit to this Commission maps showing the actual boundaries of the land to be acquired in connection with this project and thereafter within 3 years of such action by that court, it must have submitted to the Commission evidence that such lands already actually have been acquired or that proceedings necessary to bring about such acquisition have been started.

J. Unless the works authorized by this decision shall have been fully completed by November 1, 1960 or within such extended time as may have been applied for and granted by the Commission, then and on that date this decision shall be deemed to have lapsed and to be of no further force and effect.

K. Nothing in this decision and approval contained shall be held to abrogate the provisions of Section

524 of the Conservation Law, which forbid the operation of any of these works until as constructed they have been approved by the Commission. Such final approval will be given only on due petition therefor. In general such approval will not be given except for a fully completed system, and it never will be given until all provisions affecting quality of the water and safety of the works fully have been complied with.

STATUTORY DETERMINATIONS

The Water Power and Control Commission, having given due consideration to the said petition and its exhibits, and the proofs and arguments submitted at the hearing determines and decides as follows:

First. That the application, maps and plans submitted are modified as set forth above and, as so modified, are the plans hereinafter mentioned.

Second. That the plans proposed are justified by public necessity.

Third. That said plans provide for the proper and safe construction of all work connected therewith.

Fourth. That said plans provide for the proper protection of the supply and the watershed from contamination and that filtration is at the present time unnecessary.

Fifth. That said plans are just and equitable to the other municipalities and civil divisions of the State affected thereby and to the inhabitants thereof, particular consideration being given to their present and future necessities for sources of water supply.

Exhibit B.

Sixth. That said plans make fair and equitable provisions for the determination and payment of any and all legal damages to persons and property, both direct and indirect, which will result from the execution of said plans or the acquiring of said lands.

DECISION

WHEREFORE, the Water Power and Control Commission does hereby approve the said application, maps and plans of the City of New York as thus modified.

IN WITNESS WHEREOF, the Water Power and Control Commission has caused this determination and approval to be signed and has caused its official seal to be affixed hereto and has filed the same with all maps, plans, reports and other papers relating thereto in its office in the city of Albany, this 14th day of November, 1950.

WATER POWER AND CONTROL COMMISSION

PERRY B. DURYEA
Conservation Commissioner-Chairman

J. B. MCMORRAN
Chief Engineer, Department of Public Works, Alternate

(L. S.)

EDWARD L. RYAN
Assistant Attorney General, Alternate

Attest:

J. C. THOMPSON
Secretary to the Commission

Exhibit B.

STATE OF NEW YORK
CITY AND COUNTY OF ALBANY } ss.:

I, J. C. Thompson, Secretary to the Water Power and Control Commission, State of New York, do hereby certify that the foregoing is a true copy of the original decision "In the matter of the application of the City of New York to the Water Power and Control Commission for approval of its map, profile and plan for securing an additional supply of water from the West Branch of the Delaware River", duly filed in the office of said Water Power and Control Commission on the 14th day of November, 1950, and remaining on file therein.

I FURTHER CERTIFY that the said copy has been compared by me with the original thereof and that the same is a correct transcript therefrom and of the whole of said original.

WITNESS my hand and the seal of said
(SEAL) Water Power and Control Commission
this 17th day of November, 1950.

J. C. THOMPSON
Secretary to the Commission

IN THE

Supreme Court of the United States

OCTOBER TERM, 1950

No. 5, Original

STATE OF NEW JERSEY,

Complainant,

against

STATE OF NEW YORK and CITY OF NEW YORK,

Defendants,

COMMONWEALTH OF PENNSYLVANIA,

Intervenor.

BRIEF IN SUPPORT OF PETITION TO AMEND DECREE

Statement

This memorandum is submitted in support of our petition seeking the amendment of a certain decree of this Court entered May 25, 1931, so as to permit the City of New York to divert the equivalent of 800 million gallons of water daily from certain upper tributaries of the Delaware River. Said decree permitted the diversion of the equivalent of 440 million gallons of water daily from the Delaware River or its tributaries.

We also request that the decree be modified by substituting a more equitable and practical formula for releasing water from the reservoirs constructed and to be constructed on these tributaries in place of the existing release formula contained in said decree of May 25, 1931.

Our petition is brought pursuant to the provisions of paragraph "6" of said decree which empowered any of the parties to the cause in which said decree was entered to apply for other or further relief.

The Cause

(1)

In July, 1927, the City of New York proposed to augment its water supply by obtaining an additional supply from certain tributaries of the Delaware River which are located entirely within the State of New York. The plan contemplated the development of 600 million gallons of water daily from these tributaries in three stages as follows:

First Stage: —A dam and reservoir on the Neversink River (in conjunction with the development of the upper Rondout Creek, a tributary of the Hudson River) with necessary aqueducts.

Second Stage:—A dam and reservoir on the East Branch of the Delaware River, with a delivery aqueduct to the Rondout Reservoir.

Third Stage: —Dams and Reservoirs on the Little Delaware river, the Willowemoc Creek and the Beaver Kill together with the necessary aqueducts to connect with the Rondout Reservoir.

The plan was submitted to and approved in 1929 by the New York State regulatory body (New York State Water Power and Control Commission).

The State of New Jersey, by a bill in equity in this Court, sought to enjoin the City of New York and the State of New York from effectuating the plan as above described. The Commonwealth of Pennsylvania subsequently intervened and participated in the proceedings.

When the cause came to be heard, this Court, by an order entered January 27, 1930, referred the controversy to the Hon. Charles N. Burch, Special Master, to take testimony, make findings of fact and conclusions of law and submit the same to the Court with his recommendations for a decree.

Upon the trial of the issues, the State of New Jersey advanced the theory that the common law rule of riparian rights applied, while the Commonwealth of Pennsylvania urged that the proper rule to be applied was the interstate common law rule of equitable apportionment. The Master adopted the latter rule and rendered a report recommending that the City of New York be permitted to divert the equivalent of 440 million gallons of water per day from the Delaware River or its tributaries which could be obtained by the development of the first and second stages of the above described plan. This Court approved the master's report and in its opinion (283 U. S. 336) applied the interstate common law rule of equitable apportionment to the controversy and based its decree on the operation of said rule (283 U. S. 805).

Copies of the opinion of this Court and the decree are appended hereto and designated respectively Appendix A and Appendix B.

POINT I

The additional diversion of water sought by the City of New York from the tributaries of the Delaware River to augment its water supply is justified by public necessity.

On the map (Exhibit "A" attached to the petition) there is shown the plan of the City of New York. It includes the construction of an earth-fill type dam on the

West Branch of the Delaware River in the vicinity of Cannonsville, Delaware County, New York and the construction of a reservoir with a storage capacity of approximately 97 billion gallons of water. With this source, the City can supply the difference between the equivalent of 440 million gallons of water permitted under the decree of this court entered May 25, 1931 and the equivalent of 800 million gallons daily requested in this petition. The plan also includes the construction of an aqueduct to deliver the water from the proposed reservoir to the Rondout reservoir for transmission to the City.

This increase in diversion is necessary because the estimated consumption and use of water in the year 1967 by the City of New York and the communities outside its borders which are dependent upon the City's facilities for their water supply, will approximate 1440 million gallons per day. To meet this demand, the City will then have in existence authorized facilities capable of producing only 1440 million gallons of water per day. Thus, unless an additional water supply is acquired and made ready for use about the year 1967, the City of New York will be in danger of a severe and continuing water shortage.

The plan above described was approved by the New York State Water Power and Control Commission by its decision dated November 14, 1950 (Exhibit "B" attached to the petition).

The City of New York is not acting prematurely in attempting to arrange for an additional supply of water beyond the year 1967 because it is a well known fact that it requires a period of at least fifteen years to complete a project of this magnitude. The City should be in a position to start its construction at the earliest moment if it is to be completed and ready for use when needed.

In giving its approval to the City's plan, the New York State Water Power and Control Commission said:

> "It is obvious that the city should take immediate steps to acquire and develop an additional suitable source of supply in order that it will be in a position to meet demands in the years subsequent to 1960 * * *." (Finding 18.)

And again it said:

> "* * * The Commission does not believe that, particularly in view of the apparent pressing need for water in the city and of the length of time needed to consummate a project of such magnitude, action on this application should be delayed unduly * * *." (Finding 48.)

Moreover, the severe water shortage experienced during the fall of 1949, when the spectre of a possible water famine hovered over the City, compels the responsible officials to take measures to prevent a repetition of such a calamity. Bearing in mind the health and well being of upwards of 8,000,000 people, the Board of Water Supply of the City of New York adheres to the admonition of the New York State Water Power and Control Commission when it said:

> "Although the sources of supply used by the City can be depended upon in perpetuity up to the safe yield of each of them, yet the constant growth of population and increasing use of water for multifarious purposes make it essential that from time to time new sources of supply be developed. Construction of the necessary works requires years of effort, so that such project must be started far ahead of the time when the water will be required, if water shortage is to be avoided."

(*New York City* [Water Supply Application 1424], 65 State Dept. Rep. 211, 217.)

In *Columbus* v. *Mercantile Trust & D. Co.*, 218 U. S. 645, at page 658, this Court stated:

> "No higher police duty rests upon municipal authority than that of furnishing an ample supply of pure and wholesome water for public and domestic use. The preservation of the health of the community is best obtained by the discharge of this duty, to say nothing of the preservation of property from fire, so constant an attendant upon crowded conditions of municipal life."

It is the discharge of this solemn duty that impels the City to make this application at this time.

POINT II

The plan described in the petition is the most feasible and practical for the City of New York.

The development of the West Branch of the Delaware River as outlined in the petition is undoubtedly the most feasible and practical plan that will most readily and economically supply the additional water required for the future needs of the City of New York. The Board of Water Supply of the City and its various consultants, have for years given consideration to the development of additional sources of water supply. In the course of these studies the potential sources of water supply, both east and west of the Hudson River, as well as the Hudson River itself were explored. These studies show that the project here proposed is the best and the one which will most readily tie into the City's present water supply system. It can easily be integrated with the Delaware system now under construction and water from the

West Branch of the Delaware River can be transmitted to the City through the existing Delaware Aqueduct which has sufficient capacity to carry this additional quantity of water (see Exhibit "A" attached to petition). This obviates the necessity of constructing another costly aqueduct from the source to the City. The choice of this source by your petitioner in preference to other sources, particularly the Hudson River, is in keeping with the best sanitary engineering practice which is to obtain the purest water possible for a municipal supply and to make this water better and not to accept a less desirable water and make it usable by treatment and purification.

POINT III

Relief sought herein is in accordance with the interstate common law rule of equitable apportionment of interstate streams.

This Court, in making its determination of the cause in which the decree was rendered (*New Jersey* v. *New York*, 283 U. S. 336), the modification of which is sought by this petition, applied the interstate common law rule of equitable apportionment. Mr. Justice Holmes in his opinion stated at page 343:

> "This case was referred to a Master and a great mass of evidence was taken. In a most competent and excellent report the Master adopted the principle of equitable division which clearly results from the decisions of the last quarter of a century. Where that principle is established there is not much left to discuss. The removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds. In fact it has been allowed repeatedly and has been practiced by the States concerned. *Missouri*

v. *Illinois*, 200 U. S. 496, 526. *Wyoming* v. *Colorado*, 259 U. S. 419, 466. *Connecticut* v. *Massachusetts*, 282 U. S. 660, 671."

What this principle involves may be gathered from the language of the first proposition of the Commonwealth of Pennsylvania which was adopted by the Master (Report, pp. 186, 187). It is as follows:

> "1. The waters of the Delaware River and its tributaries should be fairly and equitably apportioned among the three states according to their present and reasonable future needs."

Hence, the rule of equitable apportionment as applied in this cause is not one that fixes the amount of water to be alloted to each state upon an arbitrary basis, but one that takes into consideration the present and future needs of a state or community as well as the effect the satisfaction of such needs will have upon the needs of the other interested states or communities.

Such was the rule established in the cause in which the decree was rendered, and such is the rule that governs this application for its modification. The City holds that the diversion of the equivalent of 800 million gallons of water per day from the tributaries of the Delaware River with the accompanying greatly increased dry season flows, is as much within the rule of equitable apportionment as the now authorized taking of the equivalent of 440 million gallons per day with its much smaller dry season flows.

With its diversion of 800 million gallons of water per day and accompanying releases, the City of New York proposes to take, from the watershed of the Delaware River, just over one quarter of the waters originating in New York State. To meet the needs of New Jersey and Pennsylvania there will be left not only all the water

originating on their territory (approximately 77 per cent of the total watershed down to the Delaware State line), but in addition, nearly three-quarters of the water originating in New York State. Hence, ninety-three per cent of the mean annual yield of the watershed down to the Delaware State line will be available to the other two states.

As to needs, New York's proposed diversion is required to meet the urgent needs of a population exceeding 8½ million. The 1950 population of Pennsylvania and New Jersey together, now or likely eventually to become dependent upon the Delaware River for its water supply, was substantially the same as that of New York City. For its half of the above total population, New York City proposes to divert only 7 per cent of the mean annual yield of the Delaware watershed down to the Delaware State line.

It is therefore respectfully submitted that the proposed diversion is well within the limits of equitable apportionment and consistent with the principle advanced by the Commonwealth of Pennsylvania, adopted by the Master and accepted by this Court in *New Jersey* v. *New York, et al.* (*supra*).

In addition the impounding, for subsequent use and release, of the flood waters of the West Branch of the Delaware River, will have no adverse effect upon the interests of any of the states and communities involved or of the citizens thereof. In fact, comprehensive studies of the hydrology of the river for a period of 36 years clearly show that, instead of injuring the lower states, the storing of these waters and the proposed dry season release, by reducing floods and increasing the dry season flow, will be of great and lasting benefit to the lower river and to all state, municipal and individual interests thereon.

POINT IV

The adoption of the release formula sought by the petitioner in substitution of the formula stipulated in the decree, will further improve conditions in the river and its tributaries, particularly in the driest seasons, to the greater benefit of all users below the points of the proposed diversions.

CONCLUSION

Your petitioner respectfully urges that the relief sought by this petition be granted and the decree of this Court dated May 25, 1931 be amended, as prayed for, so that New York City may begin construction of this most vital addition to its water supplies at the earliest possible moment.

Respectfully submitted,

DENIS M. HURLEY,
Corporation Counsel,
Solicitor for the Petitioner,
The City of New York.

JOHN P. MCGRATH,
JAMES J. THORNTON,
JOHN SUGLIA,
RICHARD H. BURKE,
of Counsel.

Dated: April 1st, 1952.

Appendix A.

SUPREME COURT OF THE UNITED STATES.

No. 16, Original.—October Term, 1930.

State of New Jersey, Plaintiff,
vs.
State of New York and City of New York, Defendants,
Commonwealth of Pennsylvania, Intervenor.

[May 4, 1931.]

Mr. Justice Holmes delivered the opinion of the Court.

This is a bill in equity by which the State of New Jersey seeks to enjoin the State of New York and the City of New York from diverting any waters from the Delaware River or its tributaries, and particularly from the Neversink River, Willowemoc River, Beaver Kill, East Branch of the Delaware River and Little Delaware River, or from any part of any one of them. The other rivers named are among the headwaters of the Delaware and flow into it where it forms a boundary between New York and Pennsylvania. The Delaware continues its course as such boundary to Tristate Rock, near Port Jervis in New York, at which point Pennsylvania and New York are met by New Jersey. From there the river marks the boundary between Pennsylvania and New Jersey until Pennsylvania stops at the Delaware state line, and from then on the river divides Delaware from New Jersey until it reaches the Atlantic between Cape Henlopen and Cape May.

New York proposes to divert a large amount of water from the above-named tributaries of the Delaware and from the watershed of that river to the watershed of the Hudson River in order to increase the water supply of the City of New York. New Jersey insists on a strict application of the rules of the common law governing private riparian proprietors subject to the same sovereign power. Pennsylvania intervenes to protect its interests as against anything that might be done to prejudice its future needs.

We are met at the outset by the question what rule is to be applied. It is established that a more liberal answer may be given than in a controversy between neighbors members of a single State. *Connecticut* v. *Massachusetts*, 282 U. S. 660. Different considerations come in when we are dealing with independent sovereigns having to regard the welfare of the whole population and when the alternative to settlement is war. In a less degree, perhaps, the same is true of the quasi-sovereignties bound together in the Union. A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished. Both States have real and substantial interests in the River that must be reconciled as best they may be. The different traditions and practices in different parts of the country may lead to varying results but the effort always is to secure an equitable apportionment without quibbling over formulas. See *Missouri* v. *Illinois*, 200 U. S. 496, 520. *Kansas* v. *Colorado*, 206 U. S. 46, 98, 117. *Georgia* v. *Tennessee Copper Co.*,

206 U. S. 230, 237. *Wyoming* v. *Colorado,* 259 U. S. 419, 465, 470. *Connecticut* v. *Massachusetts,* 282 U. S. 660, 670.

This case was referred to a Master and a great mass of evidence was taken. In a most competent and excellent report the Master adopted the principle of equitable division which clearly results from the decisions of the last quarter of a century. Where that principle is established there is not much left to discuss. The removal of water to a different watershed obviously must be allowed at times unless States are to be deprived of the most beneficial use on formal grounds. In fact it has been allowed repeatedly and has been practiced by the States concerned. *Missouri* v. *Illinois,* 200 U. S. 496, 526. *Wyoming* v. *Colorado,* 259 U. S. 419, 466. *Connecticut* v. *Massachusetts,* 282 U. S. 660, 671.

New Jersey alleges that the proposed diversion will transgress its rights in many respects. That it will interfere with the navigability of the Delaware without the authority of Congress or the Secretary of War. That it will deprive the State and its citizens who are riparian owners of the undiminished flow of the stream to which they are entitled by the common law as adopted by both States. That it will injuriously affect water power and the ability to develop it. That it will injuriously affect the sanitary conditions of the River. That it will do the same to the industrial use of it. That it will increase the salinity of the lower part of the River and of Delaware Bay to the injury of the oyster industry there. That it will injure the shad fisheries. That it will do the same to the municipal water supply of the New Jersey towns and cities on the River. That by lowering the level of the water it will injure the cultivation of adjoining lands; and finally, that it will injuriously affect the River for recreational purposes. The bill also complains of the change of watershed, already disposed of; denies the necessity of the diversion; charges extravagant use of present supplies,

and alleges that the plan will violate the Federal Water Power Act, (but see U. S. Code, Tit. 16, § 821,) interfere with interstate commerce, prefer the ports of New York to those of New Jersey and will take the property of New Jersey and its citizens without due process of law.

The Master finds that the above-named tributaries of the Delaware are not navigable waters of the United States at and above the places where the City of New York proposes to erect dams. Assuming that relief by injunction still might be proper if a substantial diminution within the limits of navigabiliy was threatened, *United States* v. *Rio Grande Dam & Irrigation Co.*, 174 U. S. 690, 709, he called as a witness General George B. Pillsbury, Assistant Chief of Engineers of the United States Army, who was well-acquainted with the River and the plan, and who although not speaking officially for the War Department, satisfied the Master's mind that the navigable capacity of the River would not be impaired. Of course in that particular as in some others New York takes the risk of the future. If the War Department should in future change its present disinclination to interfere, New York would have to yield to its decision, and the possible experiences of the future may make modifications of the plan as it now stands necessary in unforeseen particulars. This will be provided for in the decree. Subject to these considerations and to what remains to be said the New York plan as qualified here is reasonably necessary. Some plan must be formed and soon acted upon, and taking into account the superior quality of the water and the other advantages of the proposed site over others it at least is not arbitrary or beyond the freedom of choice that must be left to New York.

With regard to water power the Master concludes that any future plan of New Jersey for constructing dams would need the consent of Congress and of the States of

New York and Pennsylvania and though possible as a matter of engineering probably would not pay. He adds that there is no such showing of a present interest as to entitle New Jersey to relief. *New York* v. *Illinois*, 274 U. S. 488, 490. *New Jersey* v. *Sargent*, 269 U. S. 328. We have spoken at the outset of the more general qualifications of New Jersey's rights as against another State. The Master finds that the taking of 600 millions of gallons daily from the tributaries will not materially affect the River or its sanitary condition, or as a source of municipal water supply, or for industrial uses, or for agriculture, or for the fisheries for shad. The effect upon the use for recreation and upon its reputation in that regard will be somewhat more serious as will be the effect of increased salinity of the River upon the oyster fisheries. The total is found to be greater than New Jersey ought to bear, but the damage can be removed by reducing the draft of New York to 440 million gallons daily; constructing an efficient plant for the treatment of sewage entering the Delaware or Neversink (the main source of present pollution) thereby reducing the organic impurities 85%, and treating the effluent with a germicide so as to reduce the Bacillus Coli originally present in the sewage by 90%; and finally, subject to the qualifications in the decree, when the stage of the Delaware falls below .50 c. s. m. at Port Jervis, New York, or Trenton, New Jersey, by releasing water from the impounding reservoirs of New York, sufficient to restore the flow at those points to .50 c. s. m. We are of opinion that the Master's report should be confirmed and that a decree should be entered to the following effect, subject to such modifications as may be ordered by the Court hereafter.

1. The injunction prayed for by New Jersey so far as it would restrain the State of New York or City of New York from diverting from the Delaware River or its tribu-

taries to the New York City water supply the equivalent of 440 million gallons of water daily is denied, but is granted to restrain the said State and City from diverting water in excess of that amount. The denial of the injunction as above is subject to the following conditions.

(a) Before any diversion shall be made an efficient plant for the treatment of sewage at Port Jervis, New York, shall be constructed and the sewage of Port Jervis entering the Delaware or Neversink Rivers shall be treated to such an extent as to effect a reduction of 85% in the organic impurities. And the effluent from such plant shall be treated with a chemical germicide, or otherwise, so that the B. coli originally present in the sewage shall be reduced by 90%.

Untreated industrial waste from plants in said town of Port Jervis shall not be allowed to enter the Delaware or Neversink Rivers, and the treatment of such industrial wastes shall be such as to render the effluent practically free from suspended matter and non-putrescent; and said treatment of sewage and industrial waste shall be maintained so long as any diversion is made from the Delaware River or its tributaries.

(b) At any time the stage of the Delaware River falls below .50 c. s. m. at Port Jervis, New York, or Trenton, New Jersey, or both (.50 c. s. m. being equivalent to a flow of 1535 c. f. s. at Port Jervis and 3400 c. f. s. at Trenton), water shall be released from one or more of the impounding reservoirs of New York City in sufficient volume to restore the flow at Port Jervis and Trenton to .50 c. s. m., provided, however, that there is not required to be released at any time water in excess of 30% of the diversion area yield, and the diversion area yield having been ascertained to be 2.2 c. s. m., the maximum release required shall be 30% of that amount, or .66 cubic feet per second per square mile of the areas from which water is diverted.

Appendix A.

In determining the quantity of water to be released so as to add to the flow of the Delaware River, the Neversink River shall be treated as if it flowed into the Delaware River above Port Jervis, and the number of second feet of water released from the impounding reservoir on the Neversink River shall be added to the number of second feet of water released from other reservoirs, so as to determine whether the quantity of water, required by this decree to be released, has been released.

(c) That the State of New Jersey and the Commonwealth of Pennsylvania, through accredited representatives, shall at all reasonable times have the right to inspect the dams, reservoirs and other works constructed by the City of New York and to inspect the diversion areas and the inflow, outflow and diverted flow of said areas, and to inspect the meters and other apparatus installed by the City of New York and to inspect all records pertaining to inflow, outflow and diverted flow.

2. The diversion herein allowed shall not constitute a prior appropriation and shall not give the State of New York and City of New York any superiority of right over the State of New Jersey and Commonwealth of Pennsylvania in the enjoyment and use of the Delaware River and its tributaries.

3. The prayer of the intervenor, Commonwealth of Pennsylvania, for the present allocation to it of the equivalent of 750 million gallons of water daily from the Delaware River or its Pennsylvania tributaries is denied without prejudice.

4. The prayer of the Commonwealth of Pennsylvania for the appointment of a river master is denied without prejudice.

5. This decree is without prejudice to the United States and particularly is subject to the paramount authority of Congress in respect to navigation and navigable waters of the United States, and subject to the powers of the Secretary of War and Chief of Engineers of the United States Army in respect to navigation and navigable waters of the United States.

6. Any of the parties hereto, complainant, defendants or intervenor, may apply at the foot of this decree for other or further action or relief and this Court retains jurisdiction of the suit for the purpose of any order or direction or modification of this decree, or any supplemental decree that it may deem at any time to be proper in relation to the subject matter in controversy.

7. The costs of the cause shall be divided and shall be paid by the parties in the following proportions: State of New Jersey 35 per cent, City of New York 35 per cent, State of New York 15 per cent, Commonwealth of Pennsylvania 15 per cent.

The CHIEF Justice and Mr. Justice ROBERTS took no part in the consideration or decision of this case.

Appendix B.

SUPREME COURT OF THE UNITED STATES.

No. 16, Original.—October Term, 1930.

State of New Jersey, Complainant,

vs.

State of New York and City of New York, Defendants, Commonwealth of Pennsylvania, Intervenor.

[Decree]

[May 25, 1931.]

This cause came on to be heard by this Court upon the exceptions filed by the complainant and defendants to the report of the Special Master, and was argued by counsel for the States of New Jersey, New York, Pennsylvania and the City of New York.

On consideration whereof, it is now here ordered, adjudged, and decreed by this Court, as follows:

1. That the injunction prayed for by the State of New Jersey so far as it would restrain the State of New York or City of New York from diverting from the Delaware River or its tributaries to the New York City water supply the equivalent of 440 million gallons of water daily be, and the same is hereby, denied, but is granted to restrain the said State and City from diverting water in excess of that amount. The denial of the injunction as above is subject to the following conditions.

Appendix B.

(a) Before any diversion shall be made an efficient plant for the treatment of sewage at Port Jervis, New York, shall be constructed and the sewage of Port Jervis entering the Delaware or Neversink Rivers shall be treated to such an extent as to effect a reduction of 85% in the organic impurities. And the effluent from such plant shall be treated with a chemical germicide, or otherwise, so that the B. coli originally present in the sewage shall be reduced by 90%.

Untreated industrial waste from plants in said town of Port Jervis shall not be allowed to enter the Delaware or Neversink Rivers, and the treatment of such industrial wastes shall be such as to render the effluent practically free from suspended matter and non-putrescent; and said treatment of sewage and industrial waste shall be maintained so long as any diversion is made from the Delaware River or its tributaries.

(b) At any time the stage of the Delaware River falls below .50 c. s. m. at Port Jervis, New York, or Trenton, New Jersey, or both (.50 c. s. m. being equivalent to a flow of 1535 c. f. s. at Port Jervis and 3400 c. f. s. at Trenton), water shall be released from one or more of the impounding reservoirs of New York City in sufficient volume to restore the flow at Port Jervis and Trenton to .50 c. s. m., provided, however, that there is not required to be released at any time water in excess of 30% of the diversion area yield, and the diversion area yield having been ascertained to be 2.2 c. s. m., the maximum release required shall be 30% of that amount, or .66 cubic feet per second per square mile of the areas from which water is diverted.

In determining the quantity of water to be released so as to add to the flow of the Delaware River, the Neversink River shall be treated as if it flowed into the Delaware River above Port Jervis, and the number of second feet of water released from the impounding reservoir on

the Neversink River shall be added to the number of second feet of water released from other reservoirs, so as to determine whether the quantity of water, required by this decree to be released, has been released.

(c) That the State of New Jersey and the Commonwealth of Pennsylvania, through accredited representatives, shall at all reasonable times have the right to inspect the dams, reservoirs and other works constructed by the City of New York and to inspect the diversion areas and the inflow, outflow and diverted flow of said areas, and to inspect the meters and other apparatus installed by the City of New York and to inspect all records pertaining to inflow, outflow and diverted flow.

2. The diversion herein allowed shall not constitute a prior appropriation and shall not give the State of New York and City of New York any superiority of right over the State of New Jersey and Commonwealth of Pennsylvania in the enjoyment and use of the Delaware River and its tributaries.

3. The prayer of the intervenor, Commonwealth of Pennsylvania, for the present allocation to it of the equivalent of 750 million gallons of water daily from the Delaware River or its Pennsylvania tributaries is denied without prejudice.

4. The prayer of the Commonwealth of Pennsylvania for the appointment of a river master is denied without prejudice.

5. This decree is without prejudice to the United States and particularly is subject to the paramount authority of Congress in respect to navigation and navigable waters of the United States, and subject to the powers of the Secretary of War and Chief of Engineers of the United States

Army in respect to navigation and navigable waters of the United States.

6. Any of the parties hereto, complainant, defendants or intervenor, may apply at the foot of this decree for other or further action or relief and this Court retains jurisdiction of the suit for the purpose of any order or direction or modification of this decree, or any supplemental decree that it may deem at any time to be proper in relation to the subject matter in controversy.

7. The costs of the cause shall be divided and shall be paid by the parties in the following proportions: State of New Jersey 35 per cent, City of New York 35 per cent, State of New York 15 per cent, Commonwealth of Pennsylvania 15 per cent.